

SEQUENCE LISTING

<110> Jifan Hu, GMR Epigenetics Corporation;
Andrew R. Hoffman, Stanford University

<120> Gene Inactivation by Targeted DNA Methylation

<130> 10853-005-999

<140> US09/643,128

<141> 2000-08-21

<150> US60/96,749

<151> 2000-04-12

<160> 56

<170> PatentIn For Windows v. 3

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<301> Xiaoming Yao, Ji-Fan Hu, Mark Daniels, Hadas Shiran, Xiangjun Zhou, Huifan Yan,

Hongqi Lu, Zhilan Zeng, Qingxue Wang, Tao Li, and Andrew R. Hoffman

<302> A methylated oligonucleotide inhibits IGF2 expression and enhances survival

in a model of hepatocellular carcinoma

<303> Journal of Clinical Investigation

<307> in press

<400> 4
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 <302> A methylated oligonucleotide inhibits IGF2 expression and enhances survival in a model of hepatocellular carcinoma
 <303> Journal of Clinical Investigation
 <307> in press

 <400> 5
 cgacggtm5cggtm5cg-agccm5cgggm5ctgggaggagtm5cgg

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 <302> A methylated oligonucleotide inhibits IGF2 expression and enhances survival in a model of hepatocellular carcinoma
 <303> Journal of Clinical Investigation
 <307> in press

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ggtcacggtcagggcgtagatgg

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<210> 8
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 acm5cggccctttataatgm5cga

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 <213> Artificial sequence, HIV

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 cam5cgtagccm5cgagagm5ctg

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<400> 12

gm5ctgcatataagm5cagm5ctg

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<221> m5C

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<400> 13

aggm5cgcccam5cgcatm5ctgg

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<221> m5C

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am5cgcatm5ctggggm5ctgact

<210> 16
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 <213> Artificial sequence, VEGF

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<400> 16
 gttataaatm5cgcccm5cgc

<210> 17
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 <213> Artificial sequence, VEGFR

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<400> 17
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<210> 18
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accccttgam5cgtcacm5cag

<210> 19

<211> 18

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<221> m5C

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<400> 19

cttcatm5cgaggtcm5cgm5cgg

<210> 20

<211> 17

<212> DNA

<213> Artificial sequence, flk-1

<220> Hairpin

<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 20

cm5ctgcam5ctgagtccm5cgg

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<221> m5C

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<400> 21

am5cgggagagcccctcctcm5cgc

<210> 22

<211> 18

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<213> Artificial sequence, integrin belta3

<220> Hairpin

<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 22

cactgtggggm5cgggm5cgga

<210> 23

<211> 18

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<213> Artificial sequence, integrin belta3

<220> Hairpin

<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 23

tgm5cgtcccacccacm5cgm5cg

<210> 24

<211> 19

<212> DNA

<213> Artificial sequence, 12-lipoxygenase

<220> Hairpin

<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 24

cm5cgcagacm5cggtcctttaa

<210> 25

<211> 18

<212> DNA

<213> Artificial sequence, 12-lipoxygenase

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<221> m5C

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<400> 25

cm5ctgggm5cggtccm5cgggca

<210> 26

<211> 19

<212> DNA

<213> Artificial sequence, beta-amyloid protein precursor

<220> Hairpin

<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 26

ctcm5cggtm5cagtttcctm5cggc

<210> 27

<211> 18

<212> DNA

<213> Artificial sequence, 12-lipoxygenase

<220> Hairpin

<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 27

atm5cagm5ctgactm5cgcm5ctgg

<210> 28

<211> 19

<212> DNA

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<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 28

cagm5cggggaggatm5cgm5cgga

<210> 29

<211> 20

<212> DNA

<213> Artificial sequence, VEGF

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<400> 29

taaaagtm5cggm5ctggtagm5cgg

<210> 30

<211> 18

<212> DNA

<213> Artificial sequence, IGF1

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<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 30

tm5ctgtgctctagttttaa

<210> 31

<211> 18

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<221> m5C

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<400> 31

cm5cagm5ctgttttcm5ctgtct

<210> 32

<211> 20

<212> DNA

<213> Artificial sequence, HER2

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<221> m5C

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<400> 32

gm5ctgcttgaggaagtataag

<210> 33

<211> 20

<212> DNA

<213> Artificial sequence, HEr2

<220> Hairpin

<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 33

agaatgaagttgtgaagm5ctg

<210> 34

<211> 18

<212> DNA

<213> Artificial sequence, TNF-alpha

<220> Hairpin

<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 34

tgcm5cgttcctctataaag

<210> 35

<211> 18

<212> DNA

<213> Artificial sequence, TNF-alpha

<220> Hairpin

<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 35

agggacm5ctgagm5cgcm5cgg

<210> 36

<211> 21

<212> DNA

<213> Artificial sequence, TNF-beta

<220> Hairpin

<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 36

tm5cgcccm5cagggacatataaag

<210> 37
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 <213> Artificial sequence, TNF-beta

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 <221> m5C
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<400> 37
 catataaaggm5cagttggt

<210> 38
 <211> 18
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<220> Hairpin
 <221> m5C
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<400> 38
 accm5cagccagm5cagam5cgct

<210> 39
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<400> 39

tm5cggtttm5cagcaatttga

<210> 40

<211> 19

<212> DNA

<213> Artificial sequence, interleukin 4

<220> Hairpin

<221> m5C

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<400> 40

tagagatatctttgtm5cagc

<210> 41

<211> 19

<212> DNA

<213> Artificial sequence, GM-CSF

<220> Hairpin

<221> m5C

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<400> 41

ctm5ctgtgtatttaagagct

<210> 42

<211> 19

<212> DNA

<213> Artificial sequence, GM-CSF

<220> Hairpin

<221> m5C

<223> Phosphothioate oligonucleotide modified with 5-methylcytidine (m5C) at CpG dinucleotide sequence

<400> 42

cm5cgctccm5ctggcatTTTTG

<210> 43
<211> 19
<212> DNA
<213> Artificial sequence, IL-2

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<221> m5C
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dinucleotide sequence

<400> 43
cm5cagagagaagagtataat

<210> 44
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<213> Artificial sequence, bcl-2

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dinucleotide sequence

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atagm5ctggattataactc

<210> 45
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<213> Artificial sequence, bcl-2

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dinucleotide sequence

<400> 45
tm5cgtccaagaatgcaaag

<210> 46
<211> 18
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<400> 46
cagccatggaaam5cgatgt

<210> 47
<211> 19
<212> DNA
<213> Artificial sequence, HBV

<220> Hairpin
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<400> 47
tgaagm5cgaagtgcacam5cgg

<210> 48
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agam5cgggtgagacm5cgm5cgta

<210> 49
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dinucleotide sequence

<400> 49
tgcatggtgctggtgm5cgca

<210> 50
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<210> 52
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<400> 52
 gm5cgtcaatggggm5cggagt

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cm5cgagagtcttaatm5cgm5cgg

<210> 56
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